A NEW SPECIES OF TYPHLODROMUS FROM CALIFORNIA

(Phytoseiidae: Acarina)

ROBERT O. SCHUSTER

University of California, Davis

During the winter of 1956 and the spring of 1957, large numbers of an undescribed species of typhlodromid mite were recovered from grape bark in the vicinity of Lodi, San Joaquin County, California. A few representatives of the immature forms were obtained by rearing at Davis.

Typhlodromus smithi Schuster, new species

Female.—Exclusive of gnathosoma or legs. The means and standard deviations for 25 slide-mounted specimens were .391 I .008 mm. long × .240 I .02 mm. wide. Off-white, feeding individuals often greenish, reddish, or tan. Dorsal shield with faint reticular pattern particularly in two pronounced whorls lateral and posterior to setae D4 and D5; 16 pairs of dorsal setae, eight pairs marginal; setae associated in dorsal rectangle not surpassing bases of those following; length of lateral setae one through three subequal to distance between bases of D2's (± 30 microns), four through 6 longer by about 1/4; M2 and L8 longer by over two times; M2 not paired; setae S1 and S2 present on lateral interscutal membrane; three small pores located between L4 and D2, posteriomesad to L6 and anteriomesad to M2. Gnathosoma with normal setal pattern. Fixed member of chelicera with four distinct teeth; a minute seta associated with basal tooth; movable member with small tooth at inner distal 1/3. Pedipalps with customary number of setae, lacking setae of unusual shape. Tritosternum not distinctive. Sternal scutum bearing two pairs of setae, the third pair removed from the scutum and arising from the interscutal membrane; metapodal plates indistinct. Peritreme extending to middle of coxa II. Ventri-anal scutum with two pairs of preanal setae and a pair of small pores; one pair of setae located between the ventri-anal and genital scuta and two additional pairs laterad. Leg IV bears one macroseta on the basitarsus and another of intermediate length occurs midway on the inner surface of the tarsus. A coxal gland with scelerotized neck subequal in length to diameter of gland is visible in all adult females.

Male.—Chaetotaxy of dorsal shield is identical to that of female except for S2 which appears to arise from the margin of the shield. Ventri-anal scutum with four pairs of setae and a pair of pores. Macroseta present on leg IV.

Larva.—Dorsum approximately .19 mm. long × .17 mm. wide; with 10 pairs of setae, three pairs of which are long, the posterior pair being 2/3 length of dorsum; dorsum faintly divided into large anterior and small posterior shields; only the posterior pair of macrosetae occur on the smaller division. Gnathosoma with anterior and exterio-posterior rostrals, palpal

segments with usual number of setae, all of which appear simple. Venter with eight pairs of setae plus three anal setae; all coxae with two pairs of setae; macroseta on leg III. *Protonymph.*—Dorsum approximately .21 mm. long × .17 mm. wide; with 17 pairs of setae. Outline of ventri-anal plate may be visible bearing two pairs of preanal setae. *Deutonymph.*—Dorsum approximately .35 mm. long × .27 mm. wide; full compliment of setae dorsally and ventrally as in the adult; scuta not distinct.

This species has been recovered at Acampo, Lodi, and Victor, San Joaquin County, California, on December 3, 1956, January 29, 1957, and March 13 and 20, 1957, by L. M. Smith and R. O. Schuster.

Holotype female, VICTOR, SAN JOAQUIN COUNTY, CALIF., March 13, 1957, is deposited in the California Academy of Sciences; *paratypes* in the California Academy of Sciences, California Insect Survey, University of California at Davis, United States National Museum, and in the collection of Dr. D. A. Chant.

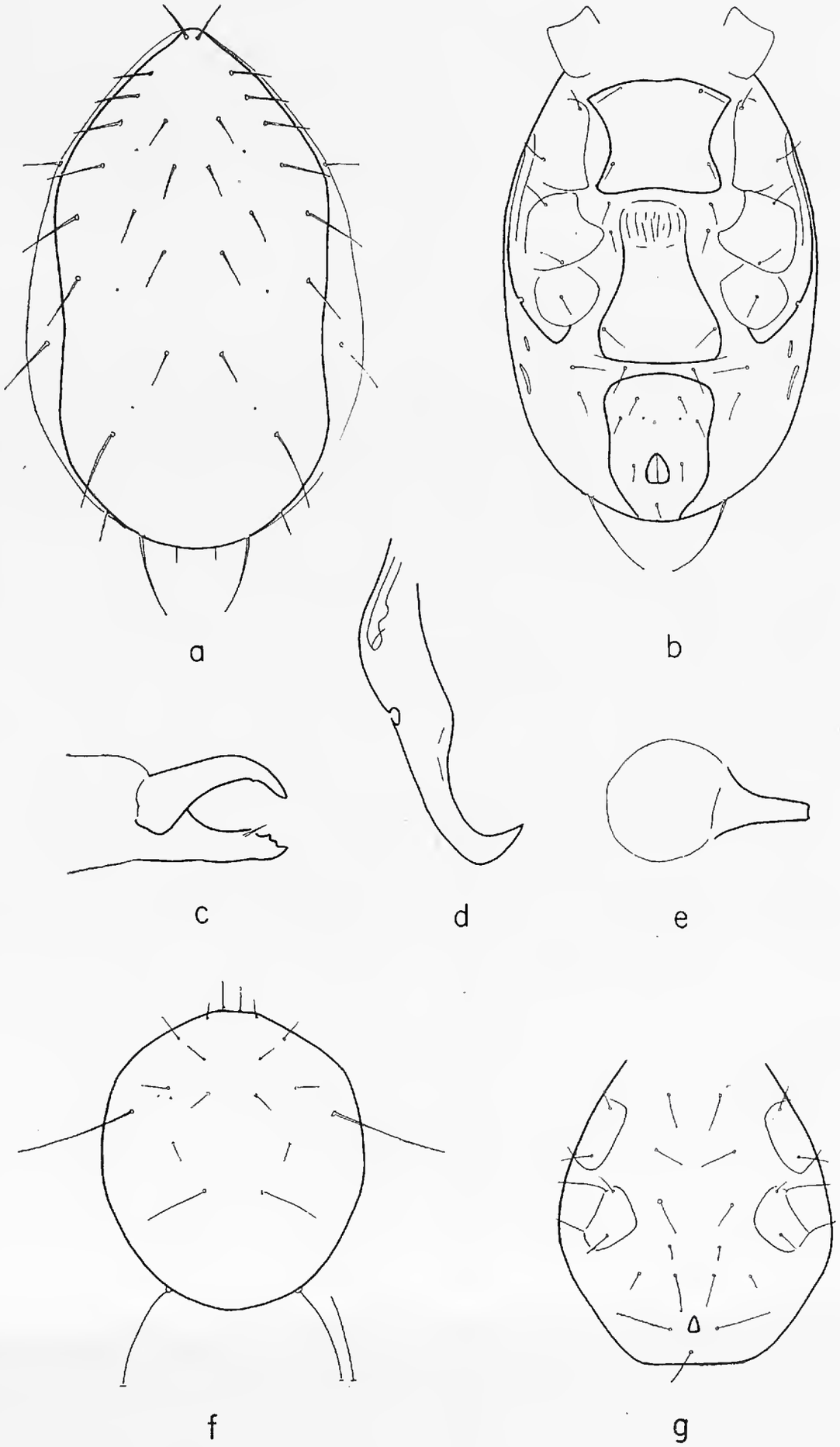
Two other typhlodomid mites, *T. irregularis* Evans and *T. americanus* (Garman) have only two pairs of setae on the ventri-anal scutum and eight pairs of lateral setae. *T. smithi* markedly differs from these species in the length and placement of the dorsal setae and in having only two pairs of setae arising from the sternal scutum. The placement of a pair of setae between the genital and ventri-anal scuta is not consistent with most other typhlodromid mites. Projecting the ventri-anal scutum to include this pair of setae does not produce a likeness to any species with eight pairs of lateral setae and three pairs on the ventri-anal scutum.

Prey species, observed in laboratory cultures, include *Tetranychus pacificus* McGregor and *Eotetranychus willamettei* (McG.). There was also some indication of feeding on *Eriophyes vittis* (Pgst.).

I take pleasure in naming this species after Dr. Leslie M. Smith who has been interested in this group of mites for many years and who has been of great assistance in collecting this species.

EXPLANATION OF PLATE 1

Typhlodromus smithi, female—*a,* dorsal shield; *b,* venter; *c,* chelicera; *d,* posterior end of peritreme; *e,* coxal gland. Larva—*f,* dorsum; *g,* venter.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